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on March 11, 2004

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Date of
Signature

PATENT

UNUS #Y2-R243-EDG
Docket #C6578(V)

AP/1751\$

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Customer No.: 000201
Appellant: Carnali et al.
Serial No.: 09/758,685
Filed: January 11, 2001
For: MECHANICAL WAREWASHING COMPOSITIONS CONTAINING SCALE
INHIBITING POLYMERS WITH TARGETED RINSE CYCLE DELIVERY
Group: 1751
Examiner: B. Mruk
Edgewater, New Jersey 07020
March 11, 2004

BRIEF FOR APPELLANTS

Hon. Commissioner of Patents and Trademarks
Alexandria, VA 22313-1450

Sir:

There are enclosed herewith three (3) copies of an Appeal Brief for Applicants. Please charge \$330.00 fee to our Deposit Account No. 12-1155.

If additional fees are required, please charge the amount of such additional fees to Deposit Account 12-1155.

Triplicate copies of this letter are enclosed.

Respectfully submitted,

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BRIEF FOR APPELLANTS

Hon. Commissioner of Patents and Trademarks
Alexandria, VA 22313-1450

Sir:

This is a Brief on Appellant's Appeal from the Examiner's Final Rejection concerning the above-identified application.

I. REAL PARTY IN INTEREST

The real party in interest of the subject application is the assignee, Unilever Home & Personal Care USA, Division of Conopco, Inc.

II. RELATED APPEALS AND INTERFERENCES

Appellants are aware of no other appeals or interferences which would directly affect or be affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

The claims pending in the application are independent claims 1 and 12; and claims 2 to 11, dependent on claim 1, all as amended.

IV. STATUS OF AMENDMENTS

Last Amendment to the claims was made in an Amendment which was mailed April 28, 2003 where applicants amended claims 1, 3 and 12.

V. SUMMARY OF THE INVENTION

The present invention, as amended, is directed to a composition comprising a specific anti-scaling polymer and vehicle designed to release said polymer wherein the key to the invention is that the polymer is released into a cold, penultimate rinse cycle which precedes a heated, final rinse cycle. The invention further claims (claim 12) a method for washing soiled dishes using the composition in the cold, penultimate rinse cycle.

VI. ISSUES FOR APPEAL

The principal issue on appeal is whether the art the Examiner deems most pertinent (i.e. EP 851,022 A2 to Zhou et al.) discloses or suggests compositions in which the anti-scalant is released specifically into the penultimate cycle rather than the final rinse cycle.

VII. GROUPING OF CLAIMS

Claims may be seen as grouped into two areas. The first is composition claims wherein polymer is released into the penultimate cycle. The second is a method of washing by charging polymer into the penultimate cycle. To the extent that there is a teaching or suggestion of an advantage in the art from charging in this specific way, the method claim is perhaps even that much further removed from the art.

VIII. APPELLANTS' ARGUMENTS

Appellants' arguments are straightforward. The Examiner argues that Zhou et al. reference discloses rinse aid composition is designed for use in final rinse steps of the machine dishwashing operation, separate from the detergent composition. The Examiner states that use of composition in the rinse cycle includes all phases of the rinse cycle.

Applicants believe the Examiner's reading of the art is simply strained and that the Examiner fails to give weight to applicants' clear showing that introduction of polymer at the penultimate rinse stage offers clear advantages over introduction in the final rinse stage.

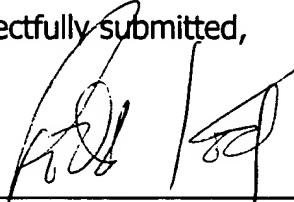
Regarding the strained reading, the Zhou et al. reference talks only of a final rinse step (singular not plural). Thus, the reference clearly shows no distinction between applying polymer at one stage versus another. By contrast, Applicants have provided a showing that the stage of introduction does make a difference. The Examiner's rejection is clearly, in this regard, one based only on hindsight.

With regard to Applicants showing, Applicants note that Example 9, versus Examples 6-8 at page 47, clearly shows that addition in the penultimate rinse step offer superior (lower) glass film scaring.

IX. CONCLUSION

In view of the remarks and arguments above, Applicants respectfully request that the Board reverse the Examiner's rejection and allow claims pending, as amended.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'R. Koatz', written over a horizontal line.

Ronald A. Koatz
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APPENDIX OF CLAIMS (37 C.F.R. 1.192(c) (9))

1. A mechanical dishwashing composition comprising:
 - (A) an anti-scaling polymer formed from
 - (i) 50 to 99% by weight of the polymer of an olefinically unsaturated carboxylic monomer;
 - (ii) 1 to 50% of at least one monomer unit selected from the group consisting of copolymerizable sulfonated monomers, copolymerizable nonionic monomers and mixtures thereof;
 - (B) 0.1 to 99.9% of a vehicle designed to release at least an effective amount of the polymer to prevent scaling;

wherein said polymer is released into a cold, penultimate rinse cycle preceding a heated, final rinse cycle of a dishwashing sequence;

wherein said vehicle of (B) is defined as (1) the sum of all components forming said composition except for said antiscaling polymer; or (2) an encapsulating material or other slow release protective chemical or device.
2. The composition according to claim 1 wherein the polymer has a weight average molecular weight ranging from about 1500 to about 250,000.
3. The composition according to claim 1 wherein said vehicle is designed to further release at least an effective amount of the polymer into a heated final rinse of the dishwashing cycle to prevent scaling.
4. The composition according to claim 3 wherein the polymer is released in a relative weight ratio of about 1:10 to about 10:1 in the penultimate and the final rinse,

respectively.

5. The composition according to claim 4 wherein the ratio is about 1:5 to about 5:1 for release in the penultimate and the final rinse, respectively.
6. The composition according to claim 5 wherein the ratio is about 1 for release in the penultimate and the final rinse, respectively.
7. The composition according to claim 1 wherein the olefinically unsaturated carboxylic monomer is in acid or salt form selected from the group consisting of monocarboxylic acids, dicarboxylic acids, polycarboxylic acids and mixtures thereof.
8. The composition according to claim 7 wherein the aliphatic acids are monoolefinic acrylic acids containing a substituent selected from the group consisting of hydrogen, halogen, hydroxyl, C₁-C₂₀ alkyl, C₆-C₁₂ aryl, C₆-C₁₆ aralkyl, C₇-C₁₆ alkaryl, C₅-C₁₆ cycloaliphatic radicals and mixtures thereof.
9. The composition according to claim 1 wherein the sulfonated monomers are compounds in acid or respective salt form selected from the group consisting of allyl hydroxyproparyl sulfonate ether, allylsulfonic acid, methallylsulfonic acid, styrene sulfonic acid, vinyl toluene sulfonic acid, acrylamino alkane sulfonic acid, allyloxybenzene sulfonic acid, 2-alkylallyloxybenzene sulfonic acids and mixtures thereof.
10. The composition according to claim 1 wherein the nonionic monomers are vinyl or allyl compounds selected from the group consisting of C₁-C₆ alkyl esters of (meth) acrylic acid, acrylamide, C₁-C₆ alkyl substituted acrylamides, N-alkyl substituted acrylamides, N-alkanol-substituted acrylamides and N-vinyl pyrrolidone.

11. The composition according to claim 1 wherein the polymer is a tetra polymer of sodium methallyl sulfonate, acrylic acid, methyl methacrylate and 4-sulfophenol methallyl ether, the ether having a formula:



12. A method for washing soiled dishes comprising charging a mechanical dishwashing composition to a wash liquor in a washing machine, the composition comprising:
- (A) an anti-scaling polymer formed from
 - (i) 50 to 99% by weight of the polymer of an olefinically unsaturated carboxylic acid monomer;
 - (ii) 1 to 50% of at least one monomer unit selected from the group consisting of copolymerizable sulfonated monomers, copolymerizable nonionic monomers and mixtures thereof;
 - (B) 0.1 to 99.9% of a vehicle designed to release at least an effective amount of the polymer to prevent scaling;

wherein said vehicle of B is defined as (1) the sum of all components forming said composition except for said anti-scaling polymer; or (2) an encapsulating material or other slow release protective chemical or device;

wherein said method comprises charging said dishwashing composition to a cold, penultimate rinse cycle preceding a heated, final rinse cycle of a dishwashing sequence.